## **CLAIMS**

1. A process for the preparation of benzo[d]isoxazol-3-yl-methanesulfonic acid of formula (I)

5 or a salt thereof, comprising the reaction of an oxime of formula (III)

with a basic agent.

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- 2. A process as claimed in claim 1, wherein the basic agent is an organic base or an alkali or alkaline-earth metal hydroxide.
  - 3. A process as claimed in claim 2, wherein the basic agent is lithium, sodium, potassium, calcium or magnesium hydroxide, or a secondary or tertiary amine.
  - 4. A benzo[d]isoxazol-3-yl-methanesulfonic acid salt, which is the lithium salt or the salt with an organic base.
    - 5. A salt as claimed in claim 4, wherein the organic base is a secondary or tertiary amine.
    - 6. A crystalline compound of formula (III) or an isomer thereof

7. A process for the preparation of zonisamide, comprising the treatment of a benzo[d]isoxazol-3-yl-methanesulfonic acid of formula (I)

or a salt thereof

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with a halogenating agent to obtain a benzo[d]isoxazol-3-yl-methanesulfonyl halide of formula (IV)

wherein X is halogen, and the treatment of compound (IV) with ammonia; wherein the benzo[d]isoxazol-3-yl-methanesulfonic acid of formula (I), or a salt thereof, is obtained by a process comprising treating an oxime of formula (III)

- 10 with a basic agent.
  - 8. A process as claimed in claim 7, wherein the basic agent is an organic base or an alkali or alkaline-earth metal hydroxide.
  - 9. A process as claimed in claim 1 or 7, wherein an oxime of formula (III), or an isomers thereof, optionally in the crystalline form, is prepared by a process comprising:

the reaction of a compound of formula (V)

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with a basic agent, to obtain a ketosultone of formula (II);

- 5 the reaction of compound (II) with hydroxylamine; and, if desired, crystallization.
  - 10. A process for preparing a ketosultone of formula (II), i.e. 2,2-dioxo-2,3-dihydro-2lambda\*6\*-benzo[e][1,2]oxathiin-4-one, comprising reacting a compound of formula (V)

with a basic agent.